



09/529, 873.

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## TRANSMITTAL LETTER

Docket No. C0003/7023

Applicant: Holmes  
Patent No: 7,049,010 B1  
Issued: May 26, 2006  
For: POLYMERIC MATERIALS FOR ELCTROLUMINESCENT DEVICES

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Certificate  
JUL 31 2006  
of Correction

## Enclosures

- Affidavit under 37 C.F.R. 1.131
  - Assignment Papers
  - Change of Correspondence Address
  - Declaration/Power of Attorney
  - Extension of Time Request
  - Fee Transmittal Form
  - Invention Disclosure Document
  - Notice of Appeal
  - Petition for
  - Power of Attorney Form
  - Second Request for Certificate of Correction
  - Request for Corrected Filing Receipt
  - Copy of Original Filing Receipt
  - Request for Continued Examination
  - Request for Reconsideration
  - Request for Refund
  - Response to Missing Parts
  - Return Receipt Postcard
  - Sheets Formal Drawing(s)
  - Two (2) copies of PTO Form 1050
  - Copy of Notice of Allowability
  - Copy of Amendment mailed
- 10/22/2004 with postcard receipt

*Therese Hendricks*  
Therese A. Hendricks, Esq., Reg. No. 30,389  
KUDIRKA & JOBSE, LLP  
Customer Number 021127  
Tel: (617) 367-4600 Fax: (617) 367-4656

Date: July 25

UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION

PATENT NO :7,049,010

DATED :May 23, 2006

INVENTOR(S) :Holmes et al.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

At col. 14 line 56, the third line of claim 4 should read:

unit is attached to its substituent via a hetero atom, selected

At col. 16 line 20, the sixteenth line of claim 22 should read:

which it is attached, 1-10 carbon atoms and 0 or 1-6

MAILING ADDRESS OF SENDER: KUDIRKA & JOBSE, LLP  
One State Street  
Boston, MA 02109

PATENT NO. 7,049,010

No. of additional copies

⇒ 1

UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION

PATENT NO :7,049,010

DATED :May 23, 2006

INVENTOR(S) :Holmes et al.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

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MAILING ADDRESS OF SENDER: KUDIRKA & JOBSE, LLP  
One State Street  
Boston, MA 02109

PATENT NO. 7,049,010

No. of additional copies



**SECOND REQUEST FOR CERTIFICATE  
OF CORRECTION**

Docket No. C0003/7023

Applicant: Holmes et al.  
Patent No: 7,049,010 B1  
Issued: May 23, 2006  
For: POLYMERIC MATERIALS FOR ELECTROLUMINESCENT DEVICES

**CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)**

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to Commissioner of Patents, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450 on 7/25/2006.



Judy Williams

This second Request for Certificate of Correction is being filed in response to a communication from the Patent Office mailed June 19, 2006 (copy enclosed). In support of Applicant's request, the following documentation is submitted herewith:

- copy of Amendment mailed October 22, 2004 (and PTO stamped postcard receipt) in which application claims 5 and 31 (which became patent claims 4 and 22) were presented in the correct form as requested herewith; i.e.,
  - a. in application claim 5 (patent claim 4) "unit" is spelled correctly (not "uni")
  - b. in application claim 31 (patent claim 22) "1-6" (not "16") is recited; and
- copy of Notice of Allowability mailed November 12, 2004 in which application claims 5 and 31 were found allowable.

Pursuant to 37 C.F.R. §1.20(a), Applicant respectfully requests the issuance of a Certificate of Correction. Two (2) copies of PTO Form 1050 are appended. The complete Certificate of Correction involves 1 page.

The mistakes identified in the appended form are typographical and were made by the Patent Office. No fee is due.

Respectfully submitted,

Date: July 25, 2006



Therese A. Hendricks, Esq., Reg. No. 30,389  
KUDIRKA & JOBSE, LLP  
Customer Number 021127  
Tel: (617) 367-4600 Fax: (617) 367-4656



UNITED STATES PATENT AND TRADEMARK OFFICE

PTIPE 1428  
JUL 28 2006  
PATENT & TRADEMARK OFFICE  
22852 1990

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
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**NOTICE OF ALLOWANCE AND FEE(S) DUE**

11/12/2004

FINNEGAN, HENDERSON, FARABOW, GARRETT &  
DUNNER  
LLP  
1300 I STREET, NW  
WASHINGTON, DC 20005

EXAMINER

TRUONG, DUC

ART UNIT

PAPER NUMBER

1711

DATE MAILED: 11/12/2004

COPY

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/529,873	07/27/2000	ANDREW BRUCE HOLMES	C1043/7023	3741

TITLE OF INVENTION: POLYMERIC MATERIALS FOR ELECTROLUMINESCENT DEVICES

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1370	\$0	\$1370	02/14/2005

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

**HOW TO REPLY TO THIS NOTICE:**

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

## PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail**

JUL 28 2006

**or Fax**

**Mail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
(703) 746-4000**

**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

22852

7590

11/12/2004

FINNEMAN, HENDERSON, FARABOW, GARRETT &  
DUNNER  
LLP  
1300 I STREET, NW  
WASHINGTON, DC 20005

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

### Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (703) 746-4000, on the date indicated below.

(Depositor's name)

(Signature)

(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/529,873	07/27/2000	ANDREW BRUCE HOLMES	C1043/7023	3741

TITLE OF INVENTION: POLYMERIC MATERIALS FOR ELECTROLUMINESCENT DEVICES

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1370	\$0	\$1370	02/14/2005

EXAMINER	ART UNIT	CLASS-SUBCLASS
TRUONG, DUC	1711	428-690000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.  
 "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,  
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 \_\_\_\_\_  
2 \_\_\_\_\_  
3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent):  Individual  Corporation or other private group entity  Government

4a. The following fee(s) are enclosed:

- Issue Fee  
 Publication Fee (No small entity discount permitted)  
 Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s):

- A check in the amount of the fee(s) is enclosed.  
 Payment by credit card. Form PTO-2038 is attached.  
 The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.  
 b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



Notice of Allowability Patent & TRADEMARK OFFICE	Application No.	Applicant(s)
	09/529,873	HOLMES ET AL.
	Examiner Duc Truong	Art Unit 1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to \_\_\_\_\_.
2.  The allowed claim(s) is/are 1,3-5,7,9,11-24,30-32 and 35-39.
3.  The drawings filed on 27 July 2000 are accepted by the Examiner.
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All    b)  Some\*    c)  None    of the:
    1.  Certified copies of the priority documents have been received.
    2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6.  CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
7.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|   | 9. <input type="checkbox"/> Other _____.  |

## REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance:

Claims 1, 3-5, 7, 9, 11-24, 30-32, and 35-39 are allowable over the prior art because none of the prior art documents discloses specific adjacent substituents of a film-forming conjugated poly(1,4-arylene vinylene) compound having a 1,4-phenylene unit, in that said adjacent substituents being oriented such as to affect the electronic structure of the compound sufficiently to cause a blue-shift in the photoluminescence and/or electroluminescence of the compound, in the claimed compound/ method of making said compound and devices using said compound .

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Truong whose telephone number is 571-272-1081. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Application/Control Number: 09/529,873  
Art Unit: 1711

Page 3

Status information for unpublished applications is available through Private PAIR only.  
For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DUCTRUONG  
PRIMARY EXAMINER

\*\*\*

TAH-mtB

16

**PLEASE STAMP TO ACKNOWLEDGE RECEIPT OF THE FOLLOWING:**

In Re Application of: Holmes et al.

Application No.: 09/529,873

Group Art Unit: 1711

Filed: July 27, 2000

Examiner: D. Truong

For: POLYMERIC MATERIALS FOR ELECTROLUMINESCENT DEVICES

1. Request for Continued Examination (1 page),
2. Amendment and RCE Submission Under 37 C.F.R. § 1.114 (11 pages),
3. Check in the amount of \$790.00.



Dated October 22, 2004

Docket No.: 08513.7023-00000

(Due Date:N/A)

TAH/MTB/jml - Please return postcard to J. Leveille Mail Drop CAMB.

COPY

OK/M  
10/22/04



PATENT  
Customer No. 22,852  
Attorney Docket No. 08513.7023-00000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

HOLMES et al.

Application No.: 09/529,873

Filed: July 27, 2000

For: POLYMERIC MATERIALS FOR  
ELECTROLUMINESCENT  
DEVICES

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

COPY

**AMENDMENT AND RCE SUBMISSION UNDER 37 C.F.R § 1.114**

Pursuant to the Appeal Brief filed July 23, 2004, and the Request for Continued Examination filed concurrently herewith, Applicants respectfully request reconsideration of this application in view of the following amendments and remarks.

**Amendments to the Claims** are reflected in the listing of claims in this paper.

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

1. (currently amended) A compound comprising a soluble, film-forming conjugated poly(1,4-arylene vinylene) compound having a 1,4-phenylene vinylene unit with adjacent substituents, said substituents being oriented such as to affect the electronic structure of the compound sufficiently to cause a blue-shift in the photoluminescence and/or electroluminescence of the compound, wherein the substituents are independently selected from:

- (i) R-, RO-, RS-, and RR'N-

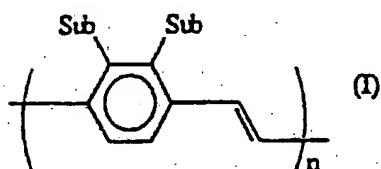
wherein R and R' are independently: a straight or branched chain alkyl group, alkenyl group, or alkynyl group having 1-10 carbon atoms; or an aromatic or non-aromatic heterocyclic group; and

- (ii) a group in which the adjacent substituents together form a cyclic group, the cyclic group containing, in addition to the two carbon atoms of the arylene unit to which it is attached, 1-10 carbon atoms and 0 or 1-6 hetero atoms selected from O, S and N.

2. (canceled).

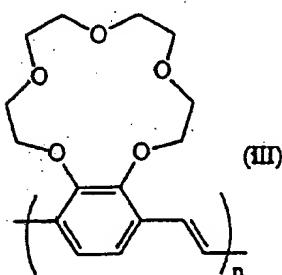
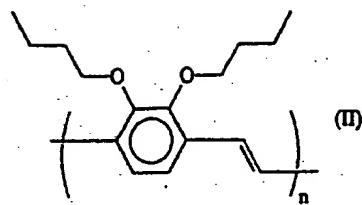
3. (currently amended) A compound according to claim [[2]] 1, wherein the cyclic group contains 2-6 hetero atoms.
4. (previously presented) A compound according to claim 1, wherein one or both of the adjacent substituents are independently selected from a branched alkyl group and a branched alkoxy group.
5. (previously presented) A compound according to claim 1, wherein each of the carbon atoms at the adjacent substituted positions of the aryl unit is attached to its substituent via a hetero atom, selected from O, S or N.
6. (canceled).
7. (previously presented) A compound according to claim 1, wherein one or both of the adjacent substituents are independently selected from butyloxy, ethylhexyloxy and 3',7'-dimethyloctyloxy groups.
8. (canceled).
9. (previously presented) A compound according to claim 1, wherein the poly(arylene vinylene) is a co-polymer comprising a fluorescent unit carrying a distyryl-2,3-substituted-benzene fragment.
10. (canceled).

11. (previously presented) A compound according to claim 1, wherein the adjacent substituents are in the 2-position and the 3-position of the phenylene residue.
12. (previously presented) A compound according to claim 11, of formula (I):



wherein Sub is a substituent as defined in claim 1, the vinylene unit may be a trans vinylene unit or a cis vinylene unit, and n is the number of units of the formula in the polymer.

13. (original) A compound according to claim 11, of formula (II) or formula (III):



wherein the vinylene unit may be a trans vinylene unit or a cis vinylene unit, and n is the number of units of the respective formula in the polymer.

14. (previously presented) A method for the production of a compound as defined in claim 1, which method comprises polymerising a bis(halomethyl) substituted phenyl monomer in the presence of a base to form a poly(arylene vinylene), wherein the phenyl monomer has adjacent substituents on the phenyl residue.

15. (original) A method according to claim 14, wherein the monomer is a bis(chloromethyl), bis(bromomethyl) or bis(iodomethyl) monomer.

16. (previously presented) A method according to claim 14, wherein the base is potassium tertiary butoxide.

17. (previously presented) A component or device comprising a compound as defined in claim 1.

18. (previously presented) A component or device according to claim 17, further comprising an electric, electronic, optical or optoelectronic component or device.
19. (previously presented) A component or device according to claim 17, further comprising a photoluminescent or electroluminescent component or device.
20. (previously presented) A light emitting diode comprising a component or device as defined in claim 17.
21. (previously presented) A method for producing a component or device, which method comprises coating a solution of a compound as defined in claim 1 onto a substrate to form a film.
22. (original) A method according to claim 21, wherein the substrate is ITO.
23. (previously presented) A method according to claim 21, wherein the solution is a chloroform solution.
24. (previously presented) A method according to claim 21, wherein the solution is spin-coated onto the substrate.
- 25-29. (canceled).
30. (original) A light emitting diode having a coating of a compound according to claim 1.
31. (currently amended) An electric, electronic, optical or optoelectronic component or device having a coating comprising a soluble, film-forming conjugated poly(1,4-arylene vinylene) compound having a 1,4-phenylene vinylene unit with

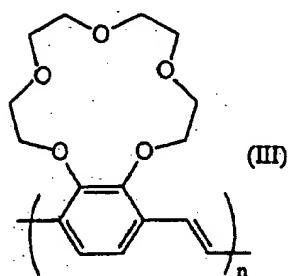
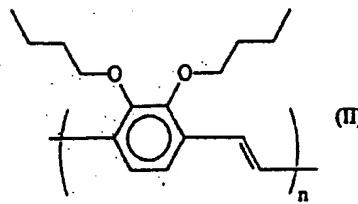
adjacent substituents which produces blue-shifted electroluminescence or photoluminescence, wherein the substituents are independently selected from:

(i) R-, RO-, RS-, and RR'N-

wherein R and R' are independently: a straight or branched chain alkyl group, alkenyl group, or alkynyl group having 1-10 carbon atoms; or an aromatic or non-aromatic heterocyclic group; and

(ii) a group in which the adjacent substituents together form a cyclic group, the cyclic group containing, in addition to the two carbon atoms of the arylene unit to which it is attached, 1-10 carbon atoms and 0 or 1-6 hetero atoms selected from O, S and N.

32. (currently amended) A compound comprising a soluble, film-forming conjugated poly(phenylene vinylene) compound having a 1,4-phenylene vinylene unit with adjacent substituents, said substituents being oriented such as to affect the electronic structure of the compound sufficiently to cause a blue-shift in the photoluminescence and/or electroluminescence of the compound, wherein the adjacent substituents are in the 2-position and the 3-position of the phenylene residue, wherein the compound is of formula (II) or formula (III):



wherein the vinylene unit may be a trans vinylene unit or a cis vinylene unit, and n is the number of units of the respective formula in the polymer.

33-34. (canceled).

35. (previously presented) A compound comprising a film-forming conjugated poly(1,4-arylene vinylene) compound, said poly(1,4-arylene vinylene) compound being soluble in organic solvents and having a 1,4-phenylene vinylene unit with adjacent substituents, said substituents being oriented such as to affect the electronic structure of the compound sufficiently to cause a blue-shift in the photoluminescence and/or electroluminescence of the compound.

36. (previously presented) An electric, electronic, optical or optoelectronic component or device having a coating comprising a film-forming conjugated poly(1,4-arylene vinylene) compound, said poly(1,4-arylene vinylene) compound being soluble in

organic solvents and having a 1,4-phenylene vinylene unit with adjacent substituents which produces blue-shifted electroluminescence or photoluminescence.

37. (currently amended) A process for directly obtaining a soluble, film-forming conjugated poly(1,4-arylene vinylene) compound having a 1,4-phenylene vinylene unit with adjacent substituents, said substituents being oriented such as to affect the electronic structure of the compound sufficiently to cause a blue-shift in the photoluminescence and/or electroluminescence of the compound, said process comprising a step of dehydrohalogenation condensation polymerisation comprising subjecting a solution comprising 2,3 disubstituted bishalomethylbenzene monomers to polymerisation with at least two equivalents of base.

38. (currently amended) A compound comprising a soluble, film-forming conjugated poly(1,4-arylene vinylene) compound having solubilising groups so as to render the conjugated poly(1,4-arylene vinylene) compound soluble in organic solvents, the compound having a 1,4-phenylene vinylene unit with adjacent substituents, said substituents being oriented such as to affect the electronic structure of the compound sufficiently to cause a blue-shift in the photoluminescence and/or electroluminescence of the compound.

39. (currently amended) An electric, electronic, optical or optoelectronic component or device having a coating comprising a film-forming conjugated poly(1,4-arylene vinylene) compound having solubilising groups so as to render the conjugated

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poly(1,4-arylene vinylene) compound soluble in organic solvents and having a 1,4-phenylene vinylene unit with adjacent substituents which produces blue-shifted electroluminescence or photoluminescence.

REMARKS

Claims 1-7, 9, 11-24 and 30-39 were pending in this application. Claims 1, 3, 31, 32, and 37-39 have been amended. Claims 2, 6, 33, and 34 have been cancelled. Claims 1, 3-5, 7, 9, 11-24, 30-32, and 35-39 remain in the application.

Applicants wish to thank the Examiner for the courtesy of telephonic interviews on September 16, 2004, and October 19, 2004, to discuss the claim amendments.

Claim 1 has been amended to incorporate the limitations of claim 2 with the exception of R as an aryl group. Claim 31 has been amended similarly. Claim 3 has been amended to change the dependency from claim 2 to claim 1. Accordingly, claim 2 has been cancelled.

Additionally, claims 1, 31, 32, 37 and 38 have been amended to delete "soluble." Claims 38 and 39 have been amended to delete "solubilising."

Accordingly, no new matter has been added by the amendments. Applicants respectfully submit that the claims are now in condition for allowance.

Please grant any extensions of time required to enter this paper and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: October 21, 2004

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